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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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09/383,508 08/26/99 RYAN

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EXAMINER

PM82/0911

CRAWFORD PLLC
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RODRIGUEZ, J
ART UNIT PAPER NUMBER

3653
DATE MAILED:

09/11/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/383,508

Applicant(s)

RYAN ET AL.

Examiner

Joseph C Rodriguez

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

In response to Applicant's appeal brief ("Appeal Brief"), Examiner has reopened prosecution. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The 35 U.S.C. 112 rejections are maintained and modified as follows:

1. The rejections under 35 U.S.C. 112, first paragraph have been withdrawn.
2. Claims 1-12 and 19 stand rejected under 35 U.S.C. 112, second paragraph. As previously stated:

The use of the phrase "adapted" has no clear technical meaning. Moreover, it does not constitute a limitation in any patentable sense. See In re Hutchison, 69 USPQ 138 (CCPA 1946). That is, the use of the phrase "adapted" renders the subsequent phrasing irrelevant and without patentable weight. Id. Consequently, the scope of Applicants claims are unascertainable and are rejected under §112, second paragraph. Applicant has failed to distinguish, or even address, the controlling law cited above.

Instead, Applicant has argued that, even in the absence of a case overturning Hutchison, the Patent Office has adopted a policy that allows the use of "adapted". Applicant is still in error as this phrasing must still satisfy the conditions set forth by 35 U.S.C. 112, second paragraph. See MPEP § 2173.05.

3. In the instant case, Applicant's replacement of the claim language "capable of" with "adapted for" only serves to add ambiguity to the claim. Applicant is invited to explain how phrasing employing "adapted for" (e.g., "one or more bays adapted for holding") differs from claim phrasing lacking "adapted for" (e.g., "one or more bays for holding"), and how "adapted" impacts the scope of the claimed invention.

The prior art rejections are maintained and modified as follows:

4. Claims 1, 3, 5, 7, 9 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by lizuka which teaches a reticle conveying device with at least one bay capable of interfacing with more than one reticle library (i.e., a library/cassette having slots for several reticles or a library with multiple cassettes each having a slot for a reticle) (col. 3, ln. 26-42; Fig. 4 and 6), wherein the conveying system retrieves and inserts reticles to and from the reticle library (Fig. 6). Here, the retrieving and inserting of the reticles within the library can be regarded as sorting since lizuka's use of a data storing means (el. 21) for storing reticle locations evidences the organizing of objects in a specific manner (i.e., sorting). lizuka also teaches the use of a holding location for a reticle (Fig. 3; col. 5, ln. 55-66) and an inspection system, which includes a tool for measuring an amount of dust on the reticle (col. 4, ln. 55,57; Fig. 3).

5. lizuka thus reads on Applicant's claimed invention even when assuming that the "adapted for" language is proper as Applicant has merely added functional language to the apparatus claims. That is, an apparatus must merely be capable of functioning as claimed to read on the claimed apparatus and lizuka's reticle system is clearly capable of sorting.

6. Claims 1, 3, 5, 7, 9-12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over lizuka in view of Sussman.

7. lizuka teaches all that is claimed except for a device with multiple bays for reticle libraries. Sussman, however, teaches that a substrate processing system with more

than one location bay capable of interfacing with a reticle sorting system (Fig. 1, 2A, 2B, and 3B; col. 3, ln. 15-19, col. 5, ln. 43-52; col. 10, ln. 29-34). Further, Sussman, like Iizuka, implicitly teaches that the retrieval and insertion functions can be used to sort reticles within a cassette, and from cassette to cassette, through the use of position sensors (col. 9, ln. 14-18; col. 10, ln. 48-62; Fig. 3B). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Iizuka's device to interface with multiple cassettes as taught by Sussman as this modification allows the exposure tools access to a greater number of reticles and reduces the time and energy required by an operator to interchange the reticle cassettes (col. 3, ln. 15-30).

8. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka and Sussman as applied to claims 1, 3, 5, 7, 9-12 and 19 above, and further in view of Umatate.

9. Iizuka and Sussman teach all that is claimed except for a controller with a host system for controlling the sorting of the reticles and a reticle sorter with an inspection system that includes a tool for detecting flaws in a reticle pattern. Umatate, however, explicitly teaches the use of a lithography information system controlled by a host computer, which controls, inter alia, the changing and aligning of reticles (col. 13, ln. 6-40). Umatate also teaches the use of various measuring devices to inspect whether a pattern has been correctly applied to a wafer (Fig. 2; col. 4, ln. 23-34; col. 10, ln. 54-69; col. 11, ln. 1-3). Thus, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to modify Iizuka and Sussman devices with an inspection system that can detect flaws in a reticle pattern, as taught by Umatate, to reduce the amount of errors during wafer fabrication. It would also have been obvious to one of ordinary skill in the art at the time the invention was made to modify Iizuka and Sussman's devices with an information system controlled by a host computer, thus allowing an operator to collect data on the system's performance and to more easily maintain optimum system performance.

10. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iizuka and Sussman as applied to claims 1, 3, 5, 7, 9-12 and 19 above, and further in view of Rosenquist.

11. Iizuka and Sussman teach all that is claimed except for a sorting system that utilizes an arm with claws and an inspection system that utilizes a video camera and display device. Rosenquist, however, teaches that a reticle cassette can be sorted using positional mapping sensors, as in Sussman, and a robot arm with a precision gripping mechanism. (col. 2, ln. 1-7 and 29-37; col. 3, ln. 57-67; col. 4, ln. 54-60; col. 8, ln. 57-65). Rosenquist also teaches that a video camera can be used to monitor the reticle (col. 10, ln. 5-8). Further, Applicant has conceded that the use of a sorting arm is known in the reticle sorting art (Amndt B, p.3) and Sussman teaches, inter alia, that the use of a arm with grasping claws is well known in the reticle sorting art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Iizuka and Sussman as taught above. These modifications provide

Art Unit: 3653

greater precision during the inspection process and provide the reticles with greater stability during the sorting process.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph C Rodriguez whose telephone number is 703-308-8342. The examiner can normally be reached on M-F during business hours, with alternate Mondays off.

The fax phone number for the organization where this application or proceeding is assigned is 703-306-4195.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

September 5, 2001


DONALD P. WALSH
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